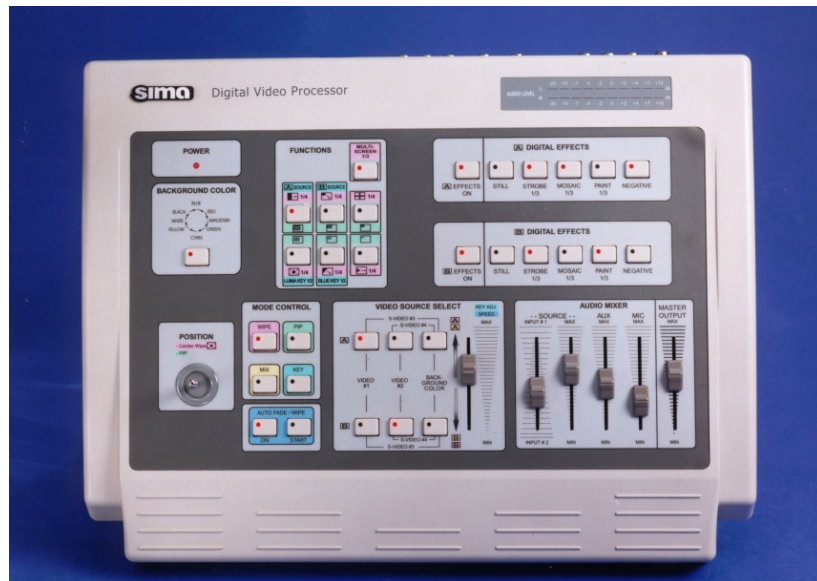# User's Manual for
SFX-10 Video Effects Mixer

by

sima ®

Sima Products Corporation

140 Pennsylvania Ave.
Bldg. #5
Oakmont, PA 15139
800-345-7462
www.simacorp.com
PN 21753

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INTRODUCTION

Congratulations on your purchase of the Sima SFX-10 Video Effects Mixer. The SFX-10 is a state-of-the-art, Digital Signal Processing video mixer designed to give amateur and home videographers professional-level effects. This unit is capable of editing two or more tapes into a single finished piece. **Note: the SFX-10 abides by copy protection regulations and will not accept copy-protected signals. When a copy-protected signal is fed into the SFX-10, the unit will display a blank screen and the Video Source Select Key light will flash.** It is equipped with 4 video inputs, 5 digital effects, dual time base correction and can effectively wipe, dissolve, fade and make transitions between video and audio segments. Please read this manual to become familiar with the SFX-10 and its various controls and then experiment on your own to make the tapes you want.

Information

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Re-orient the receiver.
2. Relocate this equipment with respect to the receiver.
3. Move this equipment away from the receiver.
4. Plug this equipment into a different outlet so that the equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful. "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402, Stock No. 004-000-00345-4.

Warnings and Safety information
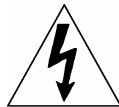
<u>Safety Check list</u>
Only a qualified service person should remove the cover or attempt to service this device. To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. ***Never make or change connections when the power is still switched on*** To prevent the risk of electric shock, do not remove the cover (or back). No user- serviceable parts inside. Please refer to important operating and maintenance (servicing) instructions in the literature accompanying this appliance

- ✓ Read these instructions and keep them for future reference.
- ✓ Heed all warnings and follow all instructions.
- ✓ Do not use this apparatus near water.
- ✓ Clean only with a damp cloth.
- ✓ Do not install near any heat surfaces such as radiator, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
- ✓ Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- ✓ Protect the power cord from being walked on or pinched particularly at plug's convenience receptacles, and the point where they exit from the apparatus.
- ✓ Use only with a cart, stand tripod bracket or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- ✓ Unplug this apparatus during lightening storms or when unused for long periods of time.
- ✓ Refer all servicing to qualified service personnel. Service is required when the apparatus has been damaged in any way, such as the power-supply cord or plug is damaged, if liquid has been spilled or an object has fallen into the apparatus or the apparatus has been exposed to rain or moisture, has been dropped, and does not operate normally.
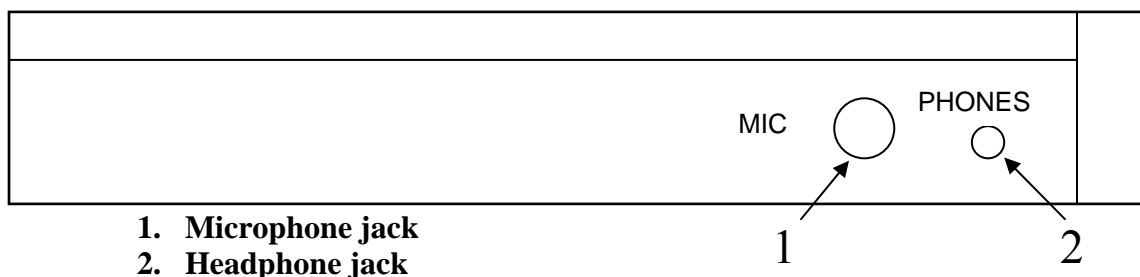
CONTROLS AND FUNCTIONS

Control Panel diagram
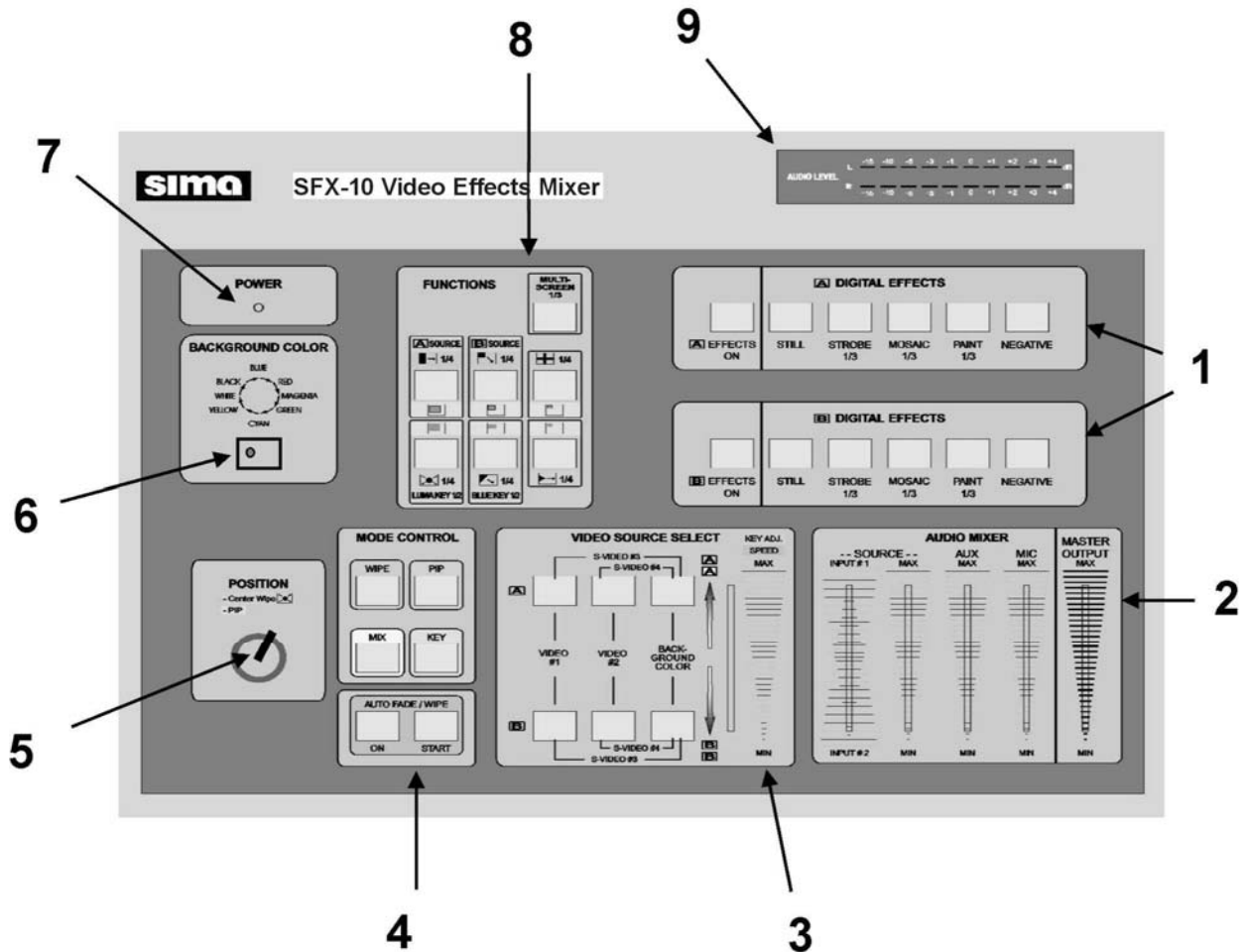
1. **Digital Effects keys**
2. **Audio mixer controls**
3. **Source Selection keys**
4. **Mode Control keys**
5. **Joystick position control**
6. **Background color selection control**
7. **Power Indicator Light**
8. **Wipe Mode Keys**
9. **Audio Mixer level**

Front Panel diagram

1. **Microphone jack**
2. **Headphone jack**

Rear panel diagram
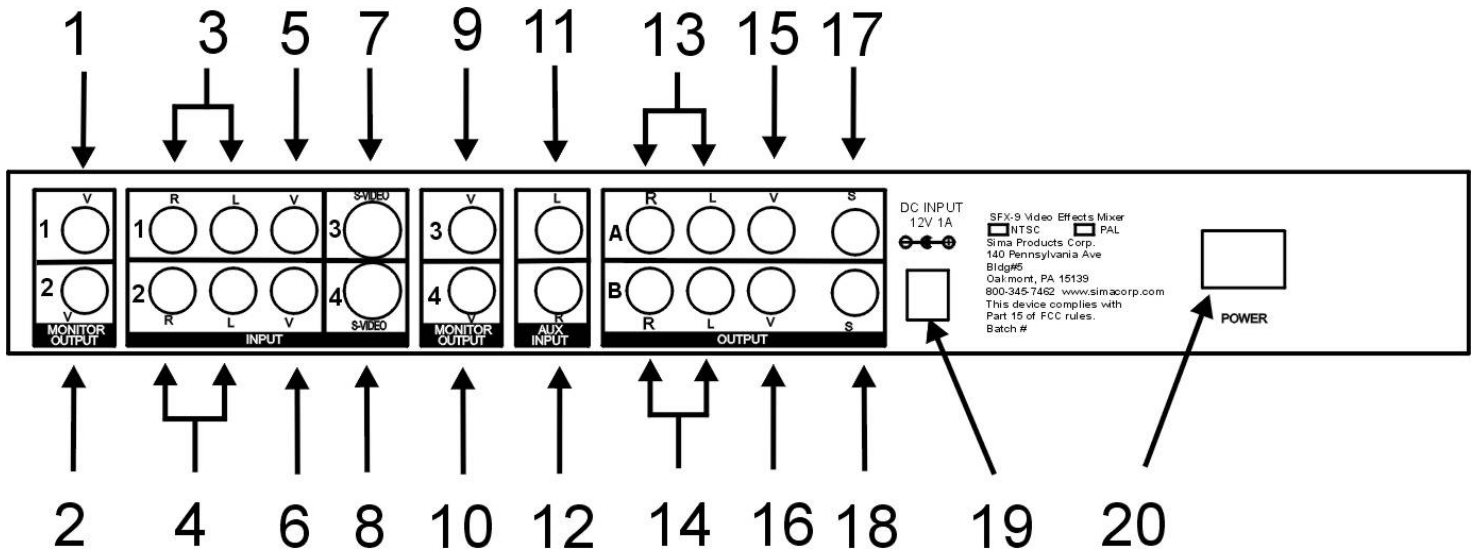
1. Video Monitor Output (Source 1)
2. Video Monitor Output (Source 2)
3. Audio R / L Input (Source 1)
4. Audio R / L Input (Source 2)
5. Composite video Input (Source 1)**
6. Composite video Input (Source 2)**
7. S-video Input (Source 3)**
8. S-video Input (Source 4)**
9. Video Monitor Output (Source 3)
10. Video Monitor Output (Source 4)

11. Aux L audio input
12. Aux R audio input
13. Audio R / L Output *
14. Audio R / L Output *
15. Composite Video Output *
16. Composite Video Output *
17. S-Video Output *
18. S-Video Output *
19. 12V DC power jack
20. 12V DC power supply
21. 120V AC power cord
22. Off/On Power switch

* Note: The A and B outputs are identical sets of the same output signals. These outputs do not correspond to the A and B source selections on the control panel.

** Note: the SFX-10 abides by copy protection regulations and will not accept copy-protected signals. When a copy-protected signal is fed into the SFX-10, the unit will display a blank screen and the Video Source Select Key light will flash.
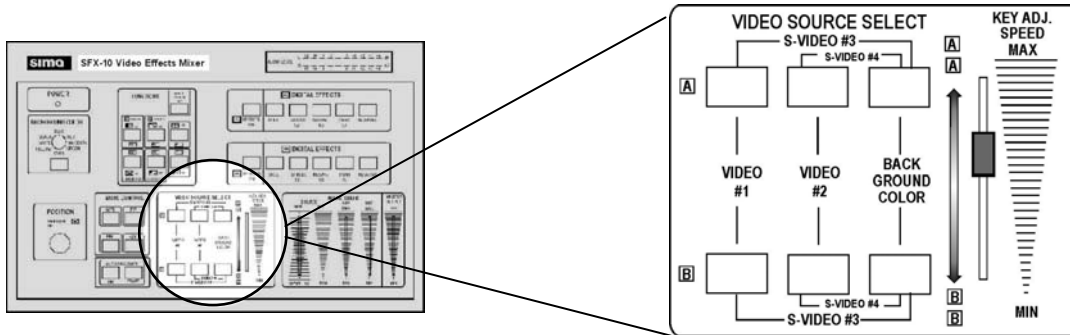
Typical Hook-up
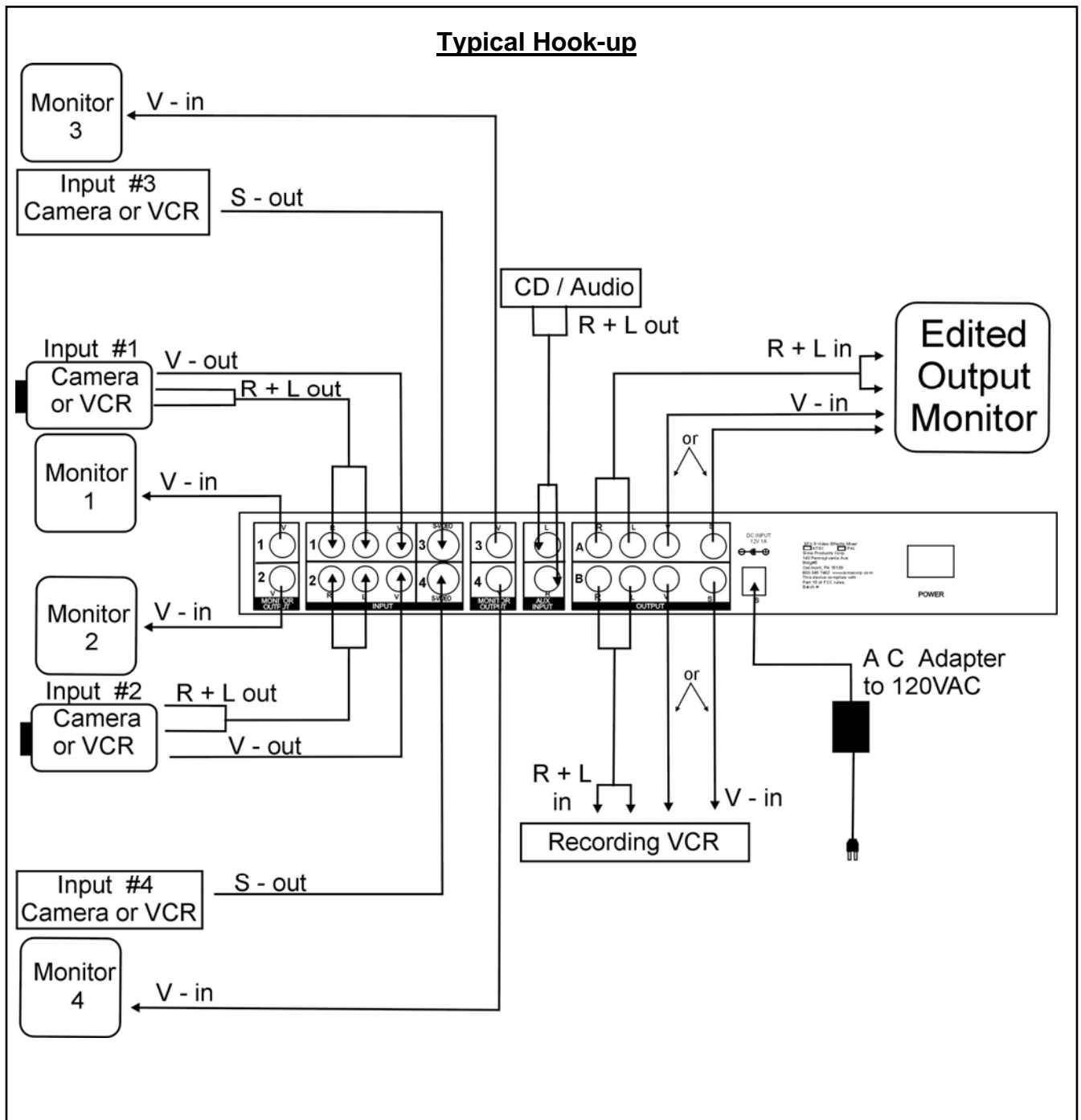
Section 1 – Power Indicator

POWER INDICATOR – The POWER INDICATOR light shows at a glance that power to the SFX-10 is turned on. The power switch is located on the back panel. (See rear panel diagram on page 6.)
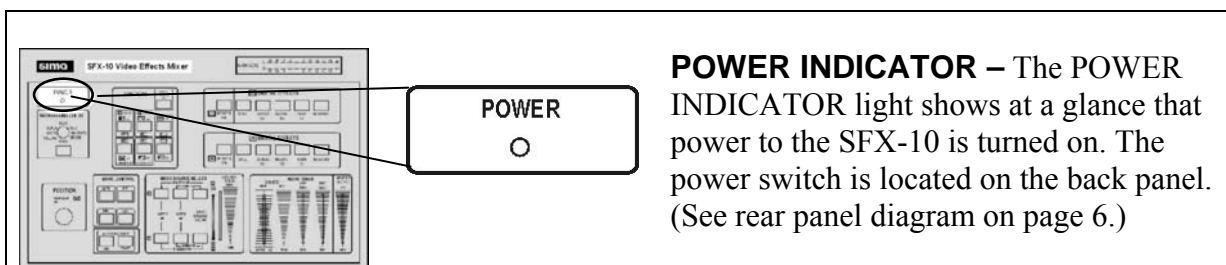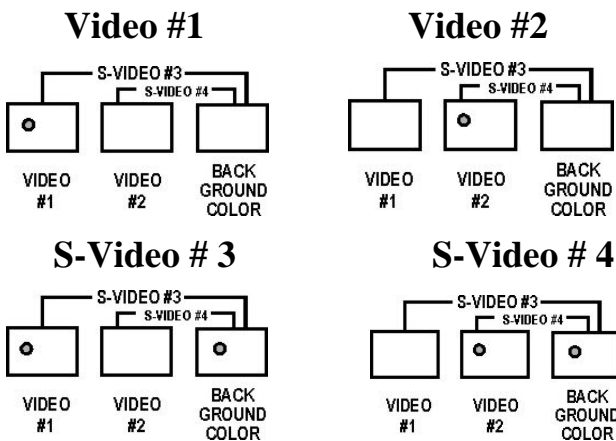
Section 2 – Video Source Select

You can make a transition between any two sources while applying digital effects, wipes, color keys and PIP modes.
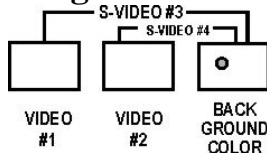

Use these buttons to select from 4 video inputs and 1 color background as follows: Note that any one of the five inputs can be selected for Source A and Source B.

Input configurations

Video #1

Video #2

S-Video # 3

S-Video # 4

To select the S-video #3 (or #4) input press the Video #1 (or #2) and the Background Color buttons at the same time (as illustrated above).

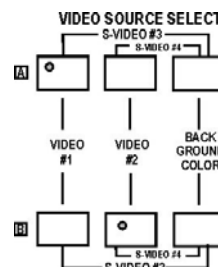## Background Color

Two Sample set-ups

Example #1	**Example #2**
Video #1	S-Video Input #3
Source A	Source A

Video #2	Background Color
Source B	Source B
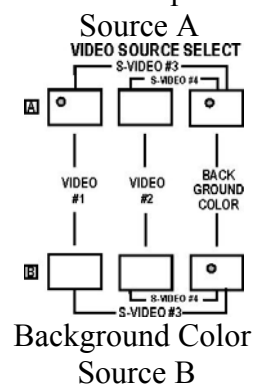
To toggle between S-video and composite video inputs within a single source try this sequence. Use only buttons in Source A for this example.

1. Select S-video #3 by pressing Video #1 and Bkgd Color at the same time.
2. Select Video #2 by pressing Video #2 button..
3. Return to S-video #3 by pressing Video #1.
4. Exit S-video mode and return to Video # 1 by pressing Video #1 and Bkgd Color at the same time

Video Slide Control - The A/B slide controls several transition functions. Moving it between A and B allows you to fade between sources in the FADE mode. The slide performs A/B wipes in the WIPE mode and controls the speed of wipes in the AUTO mode. In the KEY mode, the slide makes color adjustments. Practice using the slide to gain mastery over smooth transitions.

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Section 3 - Digital Effects (Source A & B)
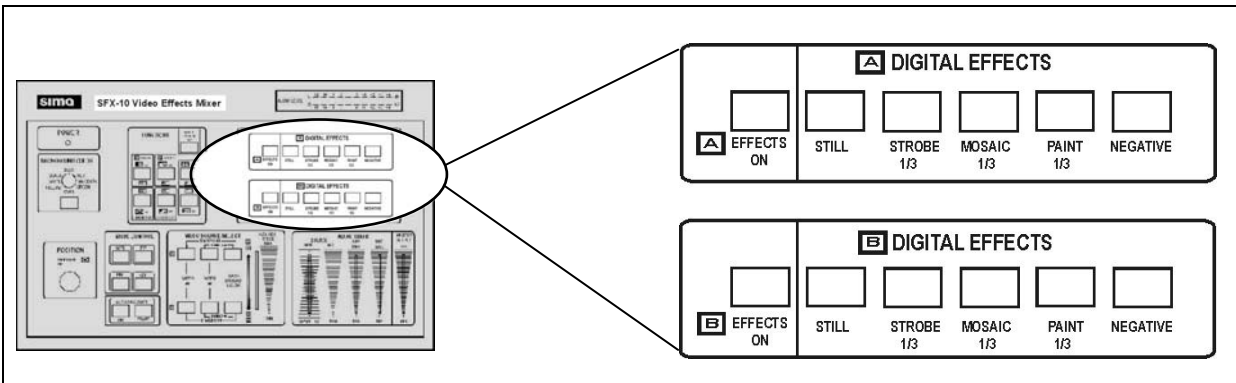
EFFECTS ON (A and B) – This off/on button allows you to activate digital effects for either source A or B or both. Press once to turn on, press a second time to turn off. The red LED indicates that the effects are activated for the given source. Note: This button must be ON for any of the effects below to work.

STILL - The STILL effect freezes the picture on the screen, but allows the audio track to continue. Press once to select STILL, press a second time to turn off. The red LED is on when the STILL effect is selected.

STROBE - The STROBE button creates video stop-action effects. Three STROBE speeds are available. Press once to turn on STROBE at high speed, press a second time to set to a medium speed and press a third time to set to a low speed. Press a fourth time to turn off. The red LED is on when the STROBE effect is selected.

MOSAIC - The MOSAIC button breaks up the video image up into a pattern of squares rendering the selected image area un-recognizable. (Commonly used in news and police shows to disguise identities.) There are three sizes of MOSAIC squares available. Each time you press the button, the effect shifts to the next size. Press a fourth time to turn off. The red LED is on when the MOSAIC effect is selected.

PAINT - The PAINT effect (sometimes called POSTERIZATION) merges shades of colors and creates an abstract type of picture. Three levels of intensity are available. Press the button three times to select the three different PAINT effects. Press a fourth time to turn the PAINT effect off. The red LED is on when the PAINT effect is selected

NEGATIVE - The NEGATIVE effect creates a negative image of the video selected. Press once to select NEGATIVE and press a second time to turn off. The red LED is on when the NEGATIVE effect is selected.

Note: These effects can be combined. STILL or STROBE can be used with MOSAIC, PAINT and NEGATIVE. Select several effects at once and apply when desired by pressing the EFFECTS ON button.

Section 4 – Mode Control
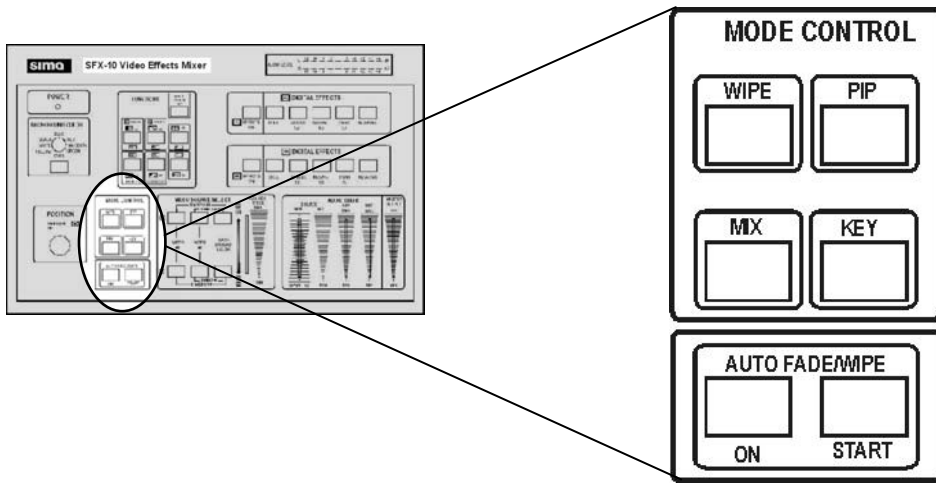
MODE CONTROL – These keys allow you to select the type of transition between two sources. **Note: All of the transitions are made by using the A/B slide control located in the Video Source Select box.**

The **WIPE** button allows you to replace one source with another using a variety of wipe patterns as selected in the function box.

 PIP stands for Picture-in-Picture. This mode allows you to place an image from Source B in a smaller window that appears within Source A. (The PIP window is always Source B.) The PIP window can be positioned using the joystick control and the A/B slide control let you fade the PIP image in and out. The PIP window is available three sizes and can be shown with or without a border as selected in the function box.

The **MIX** button lets you dissolve from one source to another smoothly and gradually using the A/B slide control.

The **KEY** button allows you to replace one source with another by keying on a pre-selected color (Blue key) or brightness (Luma key). For example, when keyed on black, Source A would replace source B beginning with all black areas of color and progressing to a complete transition. The slide control adjusts for color intensity or brightness to optimize keying the function buttons (Blue and Luma keys). Each has two settings, so you can replace the blue with the other source or replace everything except the blue with the other source. A Source and B Source buttons let you select which source is used to key.

The **AUTO FADE/WIPE** performs wipes and fades automatically at a speed you select. Press the ON button to activate the AUTO WIPE control. Press the START button to execute the transition. The speed of the wipe is determined by the setting of the control slide located in the Video Source Select box. The Start LED is on during a transition.

Section 5 – Functions
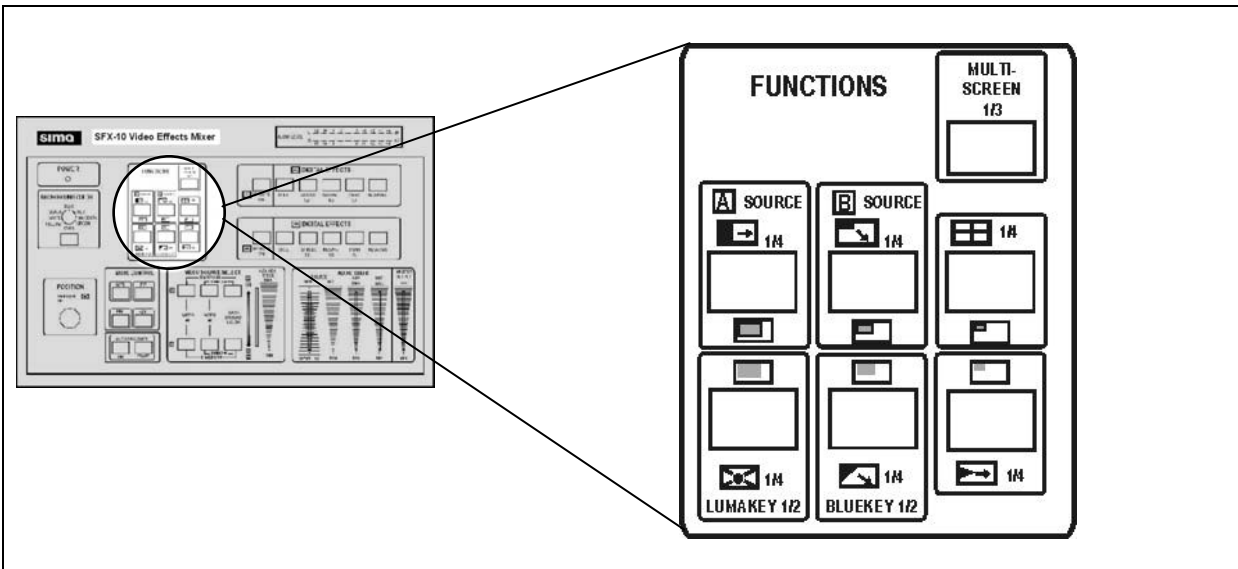
FUNCTIONS – These buttons allow you to select a variety of wipe patterns, PIP modes and color key selections. Some of the buttons in this section are marked 1/2, 1/3 or 1/4 indicating they are two, three or four step buttons that provide more than one selection. Each time you press the button it advances to the next option.

These buttons are also color coded in coordination with the color-coding on the buttons in the MODE CONTROL box.

WIPE = Purple, PIP = Green, MIX = Yellow, KEY = Aqua, AUTO WIPE = Blue

For example, when the WIPE button is selected in the MODE CONTROL box, the FUNCTION buttons will provide the selections highlighted in purple.

The **MULTI SCREEN** button provides a variety of unique wipe patterns including diamond shapes and window-blind effects. It only works in the WIPE mode.

The remaining buttons offer wipe and PIP selections as indicated. The two buttons on the bottom left hand side of the box also provide LUMA KEY and BLUE KEY selections that are made available by pressing the KEY button in the MODE CONTROL box.

Section 6 – Joystick Control
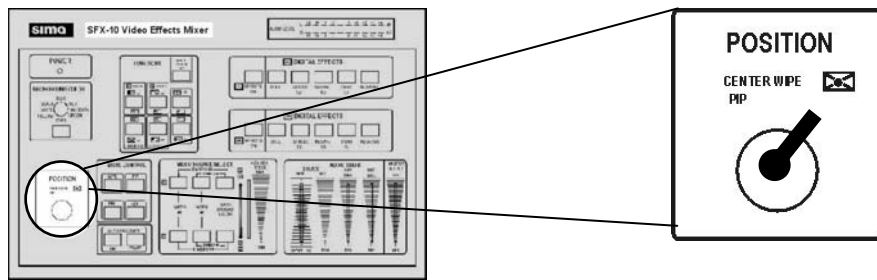
JOYSTICK CONTROL – The JOYSTICK control allows you to position and move the PIP window and the center wipe function as needed to achieve the desired results.
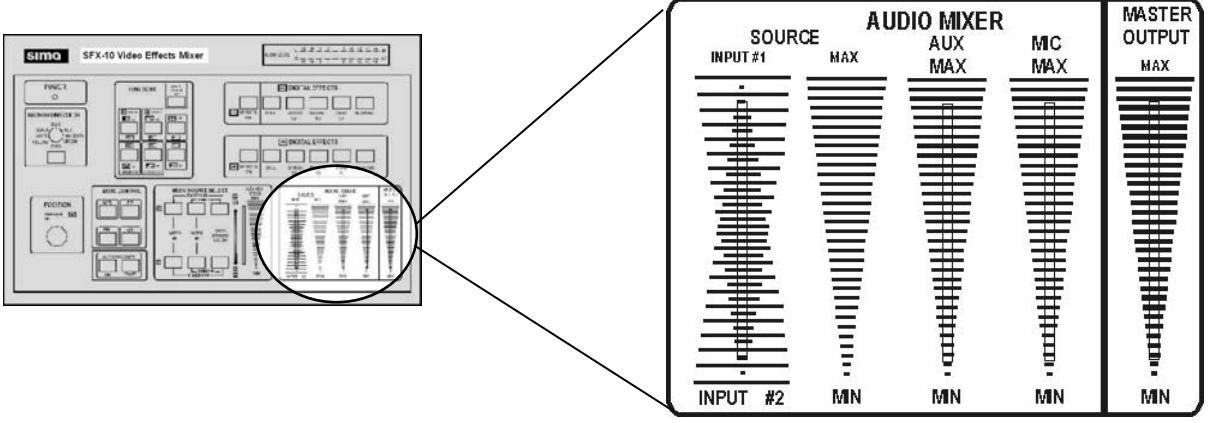
Section 7 – Background Color
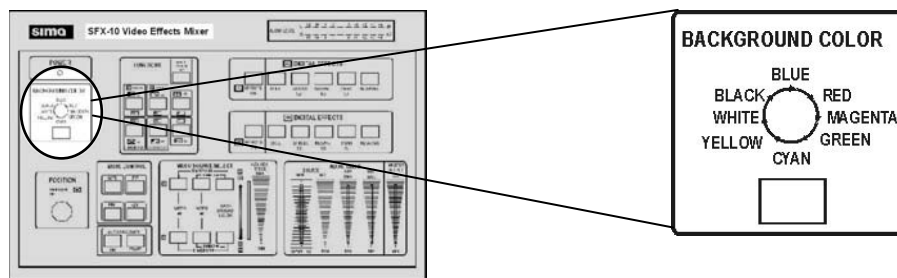
BACKGROUND COLOR – The BACKGROUND COLOR control allows you to select one of 8 colors to use in wipes, and edits keying on colors. The available colors are BLUE, RED, MAGENTA, GREEN, CYAN, YELLOW, WHITE and BLACK. The colors are selected in rotating order by successive presses of the background color button.

Section 8 - Audio Mixer

The audio mixer allows to mix the soundtrack from 2 video sources, an audio source (background music) and a microphone. **Note:** the audio sources are controlled independently from the video sources. Changing the video source, doing fades or wipes for example, does not change the audio source.

SOURCE (Input #1 - Input #2)– This slide dissolves from the audio track on Input #1 to the audio track on Input #2 when the slide is moved from the top to the bottom. When left at center, both tracks are mixed evenly.

SOURCE MAX / MIN – This slide controls the audio level of the source selected with the SOURCE slide. If the SOURCE slide is set at the top (Input #1) then the level input of Source #1 can be increased or reduced using this control.

AUX MAX / MIN – This slide controls the audio level from an auxiliary source. Background music or another audio track can be added to your edited video and its level is controlled with this slide.

MIC MAX / MIN – This slide controls the audio level of the microphone input. This is used when narration or another miked audio track is added to an edited video.

MASTER – This slide controls the overall output level of all mixed audio tracks.

Section 9 – Audio Level
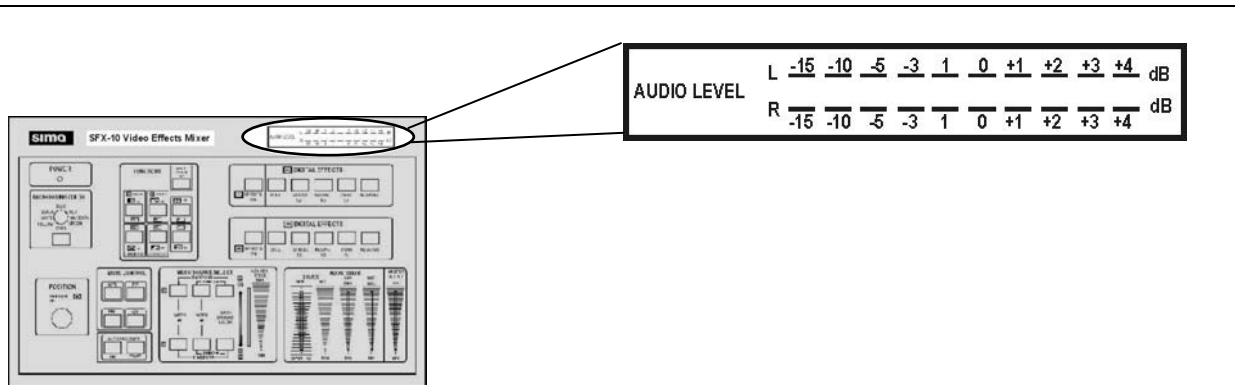
AUDIO LEVEL – This display allows you to visually monitor the audio level produced by the audio output controls located on the Audio Mixer control box. This displays the mixed audio signal that is being output by the SFX-10 to tape. Try to keep the audio level from exceeding the 0 dB level to avoid distortion.
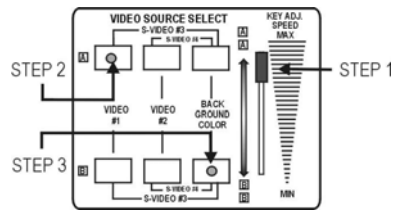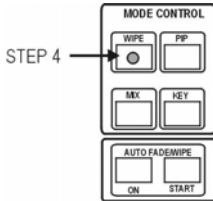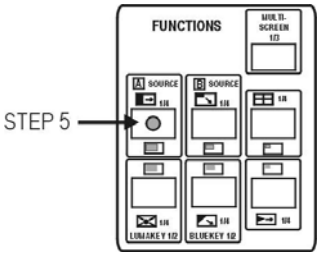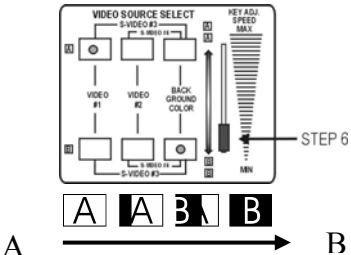
BASIC OPERATION

Hook up – First connect the 120V AC power cord to the 18V power supply. Plug the power supply into the SFX-10 and into a 120V AC outlet. Connect the SFX-10 to video and audio sources as desired. This video mixer can accept 2 composite video input sources and 2 S-video sources. It can also accept up to 4 audio input sources including a microphone and an auxiliary source. (See rear panel diagram - page 6 and typical hook-up - page 7.) Be sure to hook up a video monitor to view your editing.

Power up – The power switch for the SFX-10 is found on the rear panel of the unit. Turn on the SFX-10. With power on, the power indicator light on the front panel and several red LED lights located on control buttons will light up.

Editing – After mastering the basics of source selection, applying effects and using wipe, key, PIP and background color functions, you will be able to create professional looking tapes for your enjoyment. The next several pages demonstrate basic editing procedures. Make sure all connections are correct and all equipment (VCRs, TVs, tape players etc...) is powered on. By using the SFX-10 repeatedly and experimenting with the controls, you will become familiar with it.

To Try a Typical A **/** B Wipe

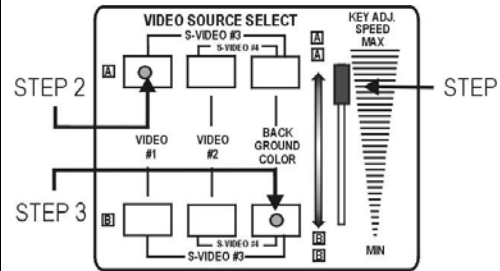|	
Step 1 Push the slide on Video Source Select to the top "A" position. **Step 2** Select any video input to be Source A by pushing the appropriate button(s). **Note**: To select S-Video #3 press both end buttons at the same time. To select S-Video #4 press the middle and far right button at the same time. Red LED lights indicate which input is selected. (Video #1 is selected in the example at right.) **Step 3** Select any video input to be Source B by pushing the appropriate button(s). (Background color is selected as Source B in the example at right.) Move the slide control between the "A" and "B" positions to view the two source images.	**Source Selection**
Step 4 Press the WIPE button (purple) in the MODE CONTROL box. **TIP:** MODE controls determine the type of transition you want to make between Source A and Source B. The wipe selection lets you replace one SOURCE with another by "wiping" images across in the screen in various patterns. Wipe patterns are selected by pressing buttons in the FUNCTIONS control panel.	**Mode Selection**
Step 5 Press the upper left hand button marked "A Source" in the FUNCTIONS control panel. This is a four-step button (1/4) which gives you a different wipe pattern each time you press the button. The 4 patterns available with this button are: R to L, Top to Bottom, L to R, or Bottom to Top. **TIP:** Icons in the purple color-coded area indicate the choice of wipe patterns. Each button in the FUNCTION control panel provides a choice of 4 wipe patterns except the Multi-Screen button. The Multi-Screen button works in combination with the other wipe patterns providing 3 multi-screen patterns and an "Off" position. The red LED lights indicate which wipe pattern is selected.	**Wipe Type Selection**
Step 6 Move the slide control from "Source A" to "Source B" to make the transition. The example (bottom right) shows a L to R wipe pattern. Your wipe pattern will depend on the setting of the four-step button selected in Step 5. **TIP:** After completing the wipe, press the four-step button again to change the pattern. Now move the slide from the "Source B" to the "Source A" position. Experiment with all the different four-step buttons and the Multi-screen button, changing wipe patterns until you are comfortable with them.	**Wipe** A ⟶ B

To Try a Typical MIX (Dissolve)

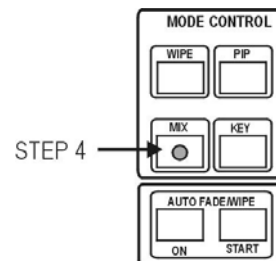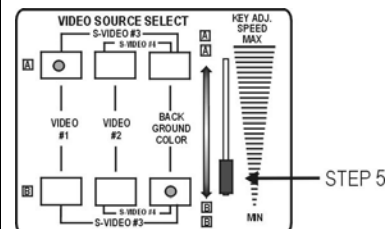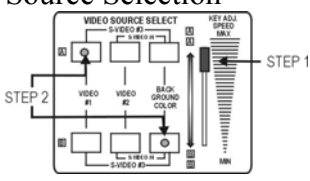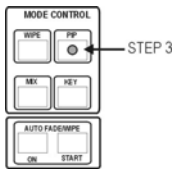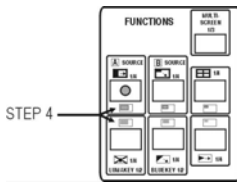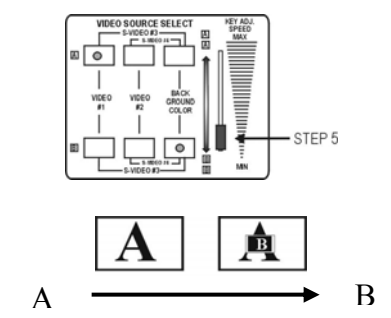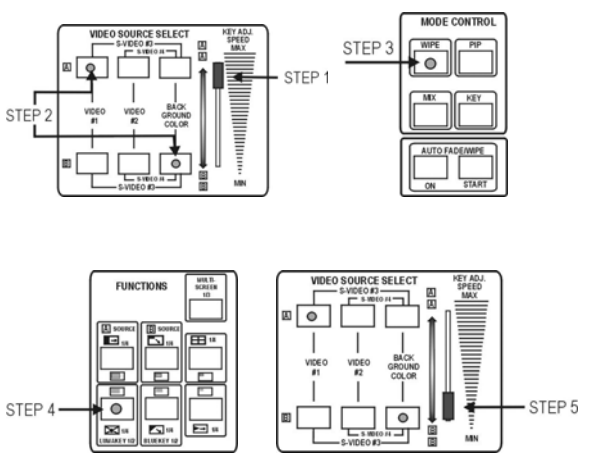|		
Step 1	**Push the Video Source Select slide to the top "A" position.**	**Source Selection**
Step 2	**Select any video input to be Source A by pushing the appropriate button(s).**	
Note:	To select S-Video #3 press both end buttons at the same time. To select S-Video #4 press the middle and far right button at the same time. Red LED lights indicate which input is selected. (Video #1 is selected in the example at right.)	
Step 3	**Select any video input to be Source B by pushing the appropriate button(s).** (Background color is selected as Source B in the example at right.) Move the slide control between the "A" and "B" positions to view the two source images.	
Step 4	**Press the MIX button (yellow) in the MODE CONTROL panel.**	**Mode Selection**
TIP:	MODE controls determine the type of transition you want to make between Source A and Source B. The MIX selection lets you dissolve from one image into another smoothly and gradually. Use the MIX mode to fade to and from black.	
Step 5	**Move the slide control from "Source A" to "Source B" to make the transition.** The example (bottom right) shows an A to B mix.	**Mix**
TIP:	The speed of the mix is determined by the speed with which you move the control slide. Also, after completing the mix, you can change the input for Source A and then return the slide to the A position to dissolve into a new image.	

Typical PIP (Picture - In - Picture)

	Source Selection
Step 1 **Push slide on Video Source Select to the top "A" position.** **Step 2** **Select video inputs for Source A and Source B by pushing the appropriate button(s). Note: Source A will always be the main picture and Source B will always be the inserted picture.** **TIP:** Remember – If the MODE button is set for WIPE or FADE, you can view the two source images by moving the slide control between the "A" and "B" positions.	
Step 3 **Press the PIP button (green) in the MODE CONTROL panel.** **TIP:** MODE controls determine the type of transition you want to make between Source A and Source B. The PIP selection lets you place a window containing one image into another. The PIP window is positioned by using the joystick control.	Mode Selection
Step 4 **Select a PIP window pattern from the FUNCTIONS control panel.** **TIP:** PIP window options are color-coded in green. PIP windows can have a colored border or no border. There are three sizes of PIP windows to select.	PIP Selection
Step 5 **Move the slide control from "Source A" to "Source B" to make the transition.** **TIP:** The PIP window image can appear smoothly and gradually by controlling the Video Source Select slide or by using the AUTO FADE/WIPE mode.	PIP A ⟶ B

To Try a Typical Center Wipe

Step 1 **Push the slide on Video Source Select to the top "A" position.** **Step 2** **Select inputs for Video Source A and Source B by pressing the appropriate buttons.** **Step 3** **Press the WIPE button in the MODE CONTROL panel.** **Step 4** **Press the CENTER WIPE button in the FUNCTIONS control panel** as shown at right. This is also a four-step button. Each time you press it, a different center wipe shape is selected. The available options are: ● ⬮ ◆ ■ Use the joy stick to position the center wipe window. **Step 5** **Move the slide control from "Source A" to "Source B" to enlarge or reduce the size of the center wipe window.** **TIP:** Use the AUTO FADE/WIPE mode to re-size the Center Wipe gradually and smoothly.	

Try a Typical Key edit (LUMA KEY and BLUE KEY)
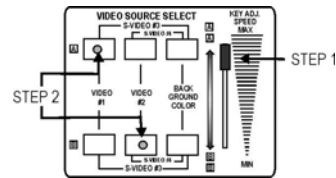
Step 1	**Push slide on Video Source Select to the top "A" position.**	Source Selection
Step 2	**Select video inputs for Source A and Source B by pushing the appropriate button(s).**	
Step 3	**Press the KEY button in the MODE CONTROL panel.** **TIP:** There are two KEY modes: LUMA KEY and BLUE KEY. As you make the transition, the key color is replaced by the secondary image. A typical use for BLUE KEY edits is when news broadcasts superimpose a weather map behind the weatherman, who stands in front of a blue background. LUMA KEY keys on the brightness levels. BLUE KEY keys on a specific shade of blue (Pantone 293).	Mode Selection
Step 4	**Select either the LUMA KEY or BLUE KEY button in the FUNCTIONS control panel as desired. (KEY choices are indicated by the icons in the yellow color-coded area.)** **TIP:** Both LUMA KEY and BLUE KEY buttons are 2-step buttons. Try each setting to determine the kind of key edit you want to key off the blue or everything but the blue.	Key Selection
Step 5	**Move the slide control in the Video Source Select control panel to make the transition.** **TIP:** As the slide is moved, colors are replaced from lightest to darkest by the secondary image. Experiment with the KEY edit to get the effect you want.	Key
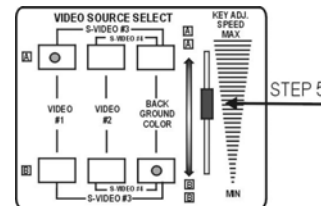
Blue Screen tips: You can create a blue screen by applying a blue background to a flat wall. It is recommended to use a roll of heavy photographic background paper (Pantone 293) that can be purchased at a photographic or art supply store. Be careful not to fold or crease the paper. Folds and creases cause shadows that change the shade of blue and may affect the blue key effect. Place a subject in front of the blue screen and input this image as source A.
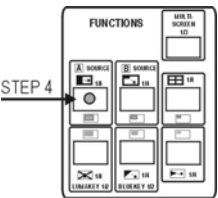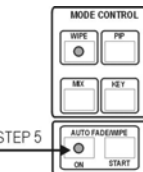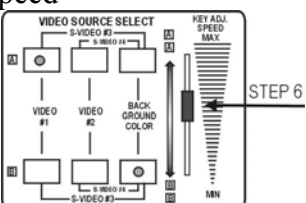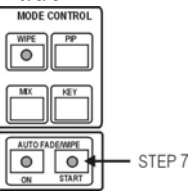
Keep in mind that all of the blue will be replaced by another image when you do the blue key edit. As the slide is moved, the Pantone 293 blue and shades of blue similar to it are replaced by the image from source B. This is how a weatherman is superimposed onto a weather map. (See illustration at right.) If portions of the blue screen are not eliminated, it is because the shade of blue is out of the range of adjustment. This can be caused by shadows and reflections. Lighting is very important in your set-up. Try to make the lighting on the blue screen as even as possible.
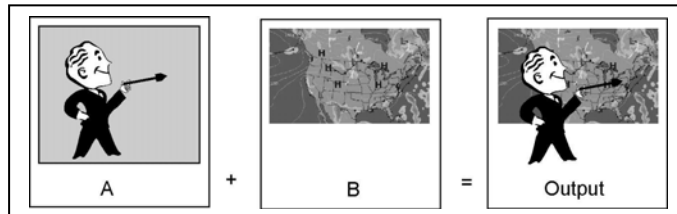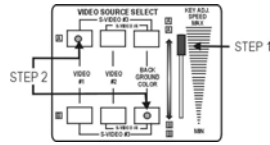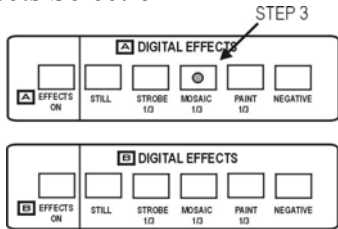
Luma key tips: The LUMA key can be used in the same way but with a black background. It will first eliminate the black background and then proceed to eliminate lighter shades from the subject image. Experimenting with these color key edits can produce some very creative and interesting effects **Tip**: Repeatedly pressing the BLUE or LUMA key, alternates between keying off the BLUE/LUMA or everything but the BLUE/LUMA key.

Typical Auto FADE/WIPE

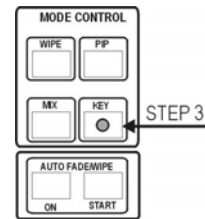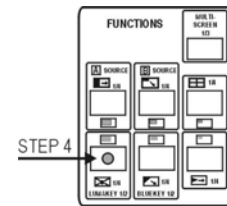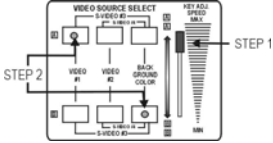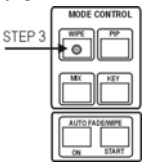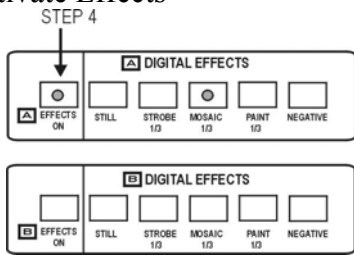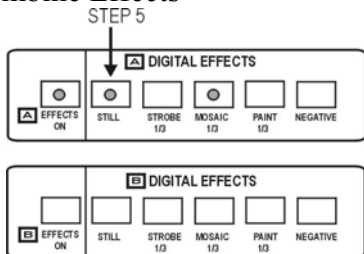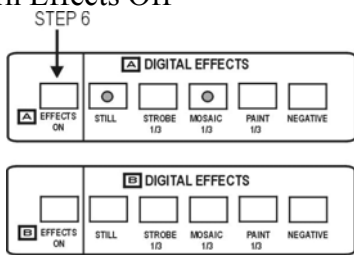|	
Step 1 **Push slide on Video Source Select to the top "A" position.** **Step 2** **Select video inputs for Source A and Source B by pushing the appropriate button(s).**	Source Selection
Step 3 **Select WIPE from the MODE CONTROL panel.** **TIP:** We will use WIPE for purposes of this example. However, the AUTO mode will work in combination with whichever button (WIPE, KEY, MIX, or PIP) is selected in the MODE CONTROL panel.	Mode Selection
Step 4 **Select one of the wipe patterns by pressing the appropriate button in the FUNCTIONS control panel. (Wipe patterns are indicated by the icons in the purple color-coded area.)** **TIP:** After selecting the desired wipe pattern, perform the wipe manually by moving the slide control in the Video Source Select control panel. If the wipe pattern is the one desired, reset the slide to the top "A" position before proceeding.	Wipe Selection
Step 5 **Press the ON button (blue) in the AUTO FADE/WIPE section of the MODE CONTROL panel.** **TIP:** Once pressed, the ON button changes the function of the Video Source Select slide control. The slide now controls the speed of the auto wipe. (This is indicated in the blue color-coded type above it.)	Auto Wipe/Fade Selection
Step 6 **Position the slide control where desired to set the speed of the auto wipe.** **TIP:** The speed of the auto wipe is determined by the setting of the control slide. The top "A" position is fastest. The bottom "B" position is slowest.	Set Speed
Step 7 **Press the START button to execute the automatic wipe.** The wipe is illustrated below the Step 7 diagram at right **TIP:** You can change the speed of the transition while the auto wipe is in progress by moving the slide control. The red LED light on the START button will stay lit for the duration of the auto wipe. Pressing the START button a second time during the auto wipe will pause the transition. Press a third time to resume progress.	Auto Wipe/Fade A → B

Digital Effects

The SFX-10 provides a set of 5 digitally generated effects that can be applied to video images from Source A, Source B or both. Some of the effects have more than one setting and some can be used in combination. (See Section 1 – Digital Effects on page 7 for more information.) All of the effects can be turned on or off by pressing the EFFECTS ON button. The red LED light indicates which effects are selected and whether they are turned on or off.

Step 1	**Push the slide on Video Source Select to the top "A" position.**	Source Selection
Step 2	**Select video inputs for Source A and Source B by pushing the appropriate button(s).**	
Step 3	**Press the MOSAIC button in the DIGITAL EFFECTS (Source A) control panel.** The red LED light will indicate the MOSAIC effect is selected. You can control effects for Source B by following the same steps using the buttons for Source B	Effects Selection
TIP:	We will use MOSAIC for purposes of this example. MOSAIC is a four-step button with three mosaic patterns and off. To become familiar with all of the effects, use this sequence on each.	
Step 4	**Press the EFFECTS ON (Source A) button to view the mosaic effect.** Press the MOSAIC button again to select a different mosaic pattern.	Activate Effects
Step 5	**Press other effects buttons to see how they work in combination with the Mosaic effect.**	Combine Effects
TIP:	STILL and STROBE can be combined with MOSAIC, PAINT or NEGATIVE effects. Experimentation is the best way to achieve success.	
Step 6	**Press the EFFECTS ON button a second time to turn the effects off.**	Turn Effects Off

Audio Mixer

The audio mixer controls permit you to mix and control the input and output levels of the audio tracks during your editing session. In addition to the audio tracks that accompany your video inputs, you can add audio from a microphone and an auxiliary source. These additional inputs allow you to do voice-overs and add music tracks easily and efficiently.

Overview: Audio tracks for Input #1 and Input #2 are routed through the audio mixer controls. If Input #1 and #2 are being used, you can use the auxiliary input as a third audio track.

Step 1   The far left-hand slide control mixes the audio tracks from Input #1 and Input #2. Move the slide from top to bottom to dissolve from Input #1 to Input #2.

Step 2   The Max/Min slide controls the overall volume level output of the mix between Inputs #1 and #2.

Step 3   The AUX slide control controls the volume level of the audio track routed through the auxiliary input.

Step 4   The MIC slide control controls the volume level of the audio track routed through the microphone input.

Step 5   The MASTER OUTPUT slide control controls the overall volume level of the mixed audio tracks of all the inputs. This is the volume level control for your output to tape.

TIP: The audio level is displayed by the Audio Level meter, located in the top right hand corner of the SFX-10 (shown at right). Use this meter to monitor the master output volume level. Occasional peaks in the red zone (above 0 dB) are okay

SPECIFICATIONS

Source Inputs	**Four Video Inputs** **Composite Video Input :** x 2 (Source 1,2) 1.0Vp-p 75Ω composite signal, Pin Jacks **S-Video (Y/C Input) Input :** x 2 (Source 3, 4)**:** Y signal: 1.0 vp-p 75Ω C signal: 0.3Vp-p 75V, Mini Din 4-pin connector **Audio Input**: x 2 -6dbv/20k Ω, Pin Jacks (L/R)
External Sound Input	MIC input: x 1 (MIC); -35dbv/600 Ω, ¼" AUX input: x 1 (AUX); -6dbv/20k Ω, Pin Jacks (L/R)
Recording Output	**Video Output: x 2** 1.0Vp-p 75Ω composite signal, Pin Jacks **Y/C Output: x 2** Y signal: 1.0 vp-p 75Ω C signal: 0.3Vp-p 75V, Mini Din 4-pin connector **Audio Output: L/R x 2** -6dBs/1 kΩ Pin Jacks (L/R)
Monitor Output	x 4 (monitor outputs, one for each input) Video Output: 1.0Vp-p 75Ω composite signal, Pin Jacks
Headphone Output	x 1 (Headphone); 8 Ω, 1/8" phone jack
Time base correction	Dual time base correctors
Video Effects – dual channel	Still, Strobe, Mosaic, Paint, Negative, Wipe, Mix, Fade, Picture-in-Picture, Chroma key, Luminance key
Background colors	White, Yellow, Cyan, Green, Magenta, Red, Blue, Black
Key Effects	Chroma – blue key, adjustable key level, normal or reverse key Luma – adjustable from black to white, normal or reverse key
Picture in Picture	Three size, w/ or w/o border, any position on the screen
Wipe patterns	96 patterns
Auto wipe/fade	Adjustable auto fade / wipe speed
S/N (typical)	Video: 48 dB (composite), 50dB (Y/C) Audio: 60 dB
Power Source	120V (240 AC), 50/60 Hz
Power Adapter output	12VDC 1.25 A
Power Consumption	Approximately 10W
Dimensions	15.6 (W) x 11.3 (D) x 2 (H) inches
Weight	4 lbs. 13 oz

World Wide compatibility

By pressing special key combinations, you can change the video system of the SFX-10 to make it compatible with different video formats used worldwide. This feature is not available on earlier versions of this product. If your manual includes this page, then the worldwide compatibility feature is fully functioning. The unit defaults to the NTSC (USA) setting.

Press the following key combination simultaneously for over 10 seconds to get your desired system

Color + ON(B-bus)   ----------   NTSC (USA)

Color + Still(B-bus)   ---------   PAL

Color + Strobe(B-bus)   ----   PAL N

Color + Mosaic(B-bus) -----   Secam

Color + Paint(B-bus) --------   PAL M

Color + Nega(B-bus) -------   NTSC 4.43

Note: When powered off, the unit retains the last worldwide setting selected.

TROUBLESHOOTING

Remember: before assuming there is technical problem, check all connections to be sure inputs and outputs are correctly hooked up.

Problem	Possible Cause	Remedy
LED's do not light up when the power is turned on.	AC adapter is not connected to the Mixer or is not plugged into a working outlet.	Attach adapter cable to the mixer. Try a different AC outlet
No picture or audio on output TV monitor.	• AC adapter is not connected to the Mixer or is not plugged into a working outlet. • Recording VCR is not switched to LINE or AUX • VCR output not switched to VCR *or* TV not switched to channel 3 or 4. • Input Source A not in PLAY mode	Attach adapter cable to the mixer. Try a different AC outlet. Switch recording VCR to LINE or AUX input to accept signals through the A/V inputs. Refer to your VCR.
No audio on the output	Audio mixer slide(s) are set at minimum levels.	Move slide to appropriate setting
DIGITAL EFFECTS do not work – have no effect on the output.	Effects are selected but not turned on.	Press EFFECTS On button to apply effects.
Video output is rolling	Unit set to wrong video standard	Set to NTSC (USA) as described on page 23.

90 DAY LIMITED WARRANTY

Sima Products Corporation warrants that if the accompanying product proves to be defective to the original purchaser in material or workmanship within 90 days from the original retail purchase, Sima Products Corporation will, at the its option, either repair or replace same without charge (but no cash refund will be made). To enforce this warranty, you must deliver, mail or ship the product, together with the original bill of sale, this limited Warranty statement as proof of warranty coverage to:

Sima Products Corporation
Attn: Customer Service
140 Pennsylvania Ave., Bldg. #5,
Oakmont, PA 15139

Before sending the unit in for service, it is recommended that you call
Sima Products Corporation at 800-345-7462.

Limitation of Liability and Remedies
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